

**STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.**

ATTORNEYS AT LAW

1100 NEW YORK AVENUE, N.W. • WASHINGTON, D.C. 20005-3934

PHONE: (202) 371-2600 • FACSIMILE: (202) 371-2540 • www.skgf.com

12/17/01  
J1131 U.S.  
10/015887

10/015887  
J10/41/T  
12/17/01  
J1131 U.S.  
10/015887

ROBERT GREENE STERNE  
EDWARD J. KESSLER  
ROSE A. GOLDSTEIN  
EMUEL L. FOX\*\*\*  
DAVID K.S. CORNWELL  
ROBERT W. ESMOND  
TRACY-GENE G. DURKIN  
MICHELE A. CIMBALA  
MICHAEL B. RAY  
ROBERT E. SOKOHL  
ERIC K. STEFFE  
MICHAEL Q. LEE  
STEVEN R. LUDWIG

JOHN M. COVERT  
LINDA E. ALCORN  
ROBERT C. MILLONIG  
MICHAEL V. MESSINGER  
JUDITH U. KIM  
TIMOTHY J. SHEA, JR.  
PATRICK E. GARRETT  
JEFFREY T. HELVEY\*  
HEIDI L. KRAUS  
JEFFREY R. KURIN  
PATRICK D. O'BRIEN  
LAWRENCE B. BUGAISKY  
CRYSTAL D. SAYLES

EDWARD W. YEE  
ALBERT L. FERRO\*  
DONALD R. BANOWIT  
PETER A. JACKMAN  
MOLLY A. MCCALL  
TERESA U. MEDLER  
JEFFREY S. WEAVER  
KENDRICK P. PATTERSON  
DONALD J. FEATHERSTONE  
VINCENT L. CAPUANO  
JOHN A. HARROUN\*  
ALBERT J. FASULO II\*  
ELDORA ELLISON FLOYD\*

W. RUSSELL SWINDELL  
THOMAS C. FIALA  
BRIAN J. DEL BUONO\*  
VIRGIL L. BEASTON\*  
RYAN J. STAMPER\*  
REGINALD D. LUCAS\*  
THEODORE A. WOOD  
ELIZABETH J. HAANES  
BRUCE E. CHALKER  
JOSEPH S. OSTROFF  
KAREN R. MARKOWICZ\*\*  
SUZANNE E. ZISKA\*\*  
ANDREA J. KAMAGE\*\*

NANCY J. LEITH\*\*  
JOSEPH M. CONRAD, III\*\*  
DOUGLAS M. WILSON\*\*  
ANN E. SUMMERFIELD\*\*  
CYNTHIA M. BOUCHEZ\*\*  
HELENE C. CARLSON\*\*  
GABY L. LONGSWORTH\*\*  
DUSTIN T. JOHNSON\*\*  
MATTHEW J. DOWD\*\*  
AARON L. SCHWARTZ\*\*

\*LIMITED TO MATTERS  
AND PROCEEDINGS BEFORE  
FEDERAL COURTS & AGENCIES  
\*\*REGISTERED PATENT AGENT  
\*\*\*SENIOR COUNSEL

December 17, 2001

WRITER'S DIRECT NUMBER:

(202) 371-2675

INTERNET ADDRESS:

JHELVEY@SKGF.COM

Commissioner for Patents  
Washington, D.C. 20231

**Box Patent Application**

Re: U.S. Non-Provisional Utility Patent Application under 37 C.F.R. § 1.53(b)  
Appl. No. *To Be Assigned*; Filed: Herewith (December 17, 2001)  
For: **Differential Amplifier With Large Input Common Mode Signal Range**  
Inventors: Hongwei Wang *et al.*  
Our Ref: 1875.1260001/JTH/TAD

Sir:

The following documents are forwarded herewith for appropriate action by the U.S.  
Patent and Trademark Office:

1. PTO Fee Transmittal (Form PTO/SB/17)(*in duplicate*);
2. PTO Utility Patent Application Transmittal (Form PTO/SB/05);
3. U.S. Utility Patent Application entitled:

**Differential Amplifier With Large Input Common Mode Signal Range**

and naming as inventors:

10015887-121701

Commissioner for Patents  
December 17, 2001  
Page 2

Hongwei WANG  
Ardie VENES

the application consisting of:

- a. A specification containing:
  - i. 27 pages of description prior to the claims;
  - ii. 5 pages of claims (claims 1-20);
  - iii. a one (1) page abstract;
- b. 12 sheets of drawings: (Figures 1-12); and
- c. A copy of the original executed Declaration;
4. Application Data Sheet;
5. Authorization to Treat a Reply As Incorporating An Extension of Time Under 37 C.F.R. § 1.136(a)(3) (*in duplicate*);
6. Recordation Form Cover Sheet;
7. A copy of the executed Assignment to **Broadcom Corporation**, recordation of which is hereby respectfully requested;
8. Our check No. 33561 for \$948.00 to cover:
  - \$740.00 - Application filing fee;
  - \$168.00 - fee for excess independent claims; and
  - \$ 40.00 - Assignment recordation fee; and
9. Two (2) return postcards.

It is respectfully requested that, of the two attached postcards, one be stamped with the filing date of these documents and returned to our courier, and the other, prepaid postcard, be stamped with the filing date and unofficial application number and returned as soon as possible. The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or

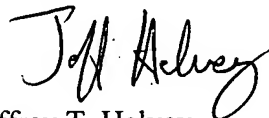
10015887-121701

Commissioner for Patents  
December 17, 2001  
Page 3

credit any overpayment, to our Deposit Account No. 19-0036. A duplicate copy of this letter is enclosed.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Jeffrey T. Helvey  
Attorney for Applicant  
Registration No. 44,757

JTH/TAD:kim

Enclosures

P:\USERS\KSACRE\TAD Doyle\1875\1260001\CvrLtr

10015387-12101

Please type a sign (+) inside this box →

PTO/SB/05 (03-01)

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE  
Used for use through 10/31/2002. OMB 0651-0032

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

# UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR § 1.53(b))

Attorney Docket No. 1875.1260001/JTH/TAD  
First Inventor Hongwei WANG  
Title Differential Amplifier with Large Input Common Mode Signal Range  
Express Mail Label No.

## APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

## ADDRESS TO:

Assistant Commissioner for Patents  
Box Patent Application  
Washington, DC 20231

1. ☒ Fee Transmittal Form (e.g., PTO/SB/17)  
(Submit an original, and a duplicate for fee processing)
2. ☐ Applicant claims small entity status.  
See 37 CFR 1.27.
3. ☒ Specification [Total Pages 33]  
(preferred arrangement set forth below)
  - Descriptive title of the Invention
  - Cross Reference to Related Applications
  - Statement Regarding Fed sponsored R & D
  - Reference to sequence listing, a table, or a computer program listing appendix
  - Background of the Invention
  - Brief Summary of the Invention
  - Brief Description of the Drawings (if filed)
  - Detailed Description
  - Claim(s)
  - Abstract of the Disclosure
- ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets 12]
5. Oath or Declaration [Total Pages 1]
  - a. ☒ Newly executed (original or copy)
  - b. ☐ Copy from a prior application (37 CFR 1.63(d))  
(for continuation/divisional with Box 18 completed)
    - i. ☐ DELETION OF INVENTOR(S)  
Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR §§ 1.63(d)(2) and 1.33(b).
6. ☒ Application Data Sheet. See 37 CFR 1.76.

7. ☐ CD-ROM or CD-R in duplicate, large table or Computer Program  
(Appendix)
8. Nucleotide and/or Amino Acid Sequence Submission  
(if applicable, all necessary)
  - a. ☐ Computer Readable Form (CRF)
  - b. Specification Sequence Listing on:
    - i. ☐ CD-ROM or CD-R (2 copies); or
    - ii. ☐ paper
  - c. ☐ Statements verifying identity of above copies

## ACCOMPANYING APPLICATION PARTS

9. ☒ Assignment Papers (cover sheet & document(s))
10. ☐ 37 CFR 3.73(b) Statement ☐ Power of Attorney  
(when there is an assignee)
11. ☐ English Translation Document (if applicable)
12. ☐ Information Disclosure Statement (IDS)/PTO-1449 ☐ Copies of IDS Citations
13. ☐ Preliminary Amendment
14. ☒ Two (2) Return Receipt Postcards (MPEP 503)  
(Should be specifically itemized)
15. ☐ Certified Copy of Priority Document(s)  
(if foreign priority is claimed)
16. ☐ Nonpublication Request under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.
17. ☒ Other: Authorization under 37 C.F.R. § 1.136(a)(3)  
☒ Other: The name of the assignee is: Broadcom Corporation

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:

☐ Continuation ☐ Divisional ☐ Continuation-in-Part (CIP) of prior application No: \_\_\_\_ / \_\_\_\_  
Prior application information: Examiner \_\_\_\_\_ Group/Art Unit: \_\_\_\_\_

For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

## 19. CORRESPONDENCE ADDRESS

☒ Customer Number or Bar Code Label

Customer No. 26111



or ☐ Correspondence address below

(Insert Customer Number or Bar Code Label here)

NAME	STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.				
	Attorneys at Law				
ADDRESS					
CITY		STATE		ZIP CODE	
COUNTRY		TELEPHONE		FAX	

NAME (Print/Type)	Jeffrey T. Helvey	Registration No. (Attorney/Agent)	44,757
SIGNATURE	<i>J. T. Helvey</i>	Date	12/17/01

Burden Hour Statement: this form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Box Patent Application, Washington, DC 20231.

# FEE TRANSMITTAL for FY 2002

Patent fees are subject to annual revision.

## Complete if Known

Application Number	To Be Assigned
Filing Date	Herewith (December 17, 2001)
First Named Inventor	WANG
Examiner Name	To Be Assigned
Group Art Unit	To Be Assigned
Attorney Docket No.	1875.1260001/JTH/TAD

TOTAL AMOUNT OF PAYMENT

(\$)

948.00

### METHOD OF PAYMENT (check one)

1. ☐ The Commissioner is hereby authorized to charge indicated fees and credit any overpayment to:

Deposit Account Number

19-0036

Deposit Account Name

Sterne, Kessler, Goldstein &amp; Fox P.L.L.C.

- ☐ Charge Any Additional Fee Required Under 37 CFR §§ 1.16 and 1.17

- ☐ Applicant claims small entity status See 37 CFR 1.27

2. ☒ Payment Enclosed: Check No. 33561

- ☒ Check ☐ Credit card ☐ Money Order ☒ Other\*  
\*Charge any deficiencies or credit any overpayments in the fees or fee calculations of Parts 1, 2 and 3 below to Deposit Account No. 19-0036.

### FEE CALCULATION

#### BASIC FILING FEE

Large Fee Code	Entity Fee (\$)	Small Fee Code	Entity Fee (\$)	Fee Description	Fee Paid
101	740	201	370	Utility filing fee	\$740.00
105	330	206	165	Design filing fee	
107	510	207	255	Plant filing fee	
108	740	208	370	Reissue filing fee	
114	160	214	80	Provisional filing fee	
SUBTOTAL (1) (\$)					740.00

#### 2. EXTRA CLAIM FEES

Total Claims	Extra	Fee from below	Fee Paid
20 - 20** = 0	X	18	-0-
Indep. Claims 5 - 3** = 2	X	84	\$168.00
Multiple Dependent			

Large Fee Code	Entity Fee (\$)	Small Fee Code	Entity Fee (\$)	Fee Description
103	18	203	9	Claims in excess of 20
102	84	202	42	Independent claims in excess of 3
104	280	204	140	Multiple dependent claim
108	84	209	42	**Reissue independent claims over original patent
110	18	210	9	**Reissue claims in excess of 20 and over original patent
SUBTOTAL (2)				(\$) <u>168.00</u>

\*\* or number previously paid, if greater; For Reissues, see above

### FEE CALCULATION (continued)


#### 3. ADDITIONAL FEES

Large Entity Small Entity

Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description	Fee paid
105	130	205	65	Surcharge - late filing fee or oath	
127	50	227	25	Surcharge - late provisional filing fee or cover sheet	
139	130	139	130	Non-English specification	
147	2,520	147	2,520	For filing a request for <i>ex parte</i> reexamination	
112	920*	112	920*	Requesting publication of SIR prior to Examiner action	
113	1,840*	113	1,840*	Requesting publication of SIR after Examiner action	
115	110	215	55	Extension for reply within first month	
116	400	216	200	Extension for reply within second month	
117	920	217	460	Extension for reply within third month	
118	1,440	218	720	Extension for reply within fourth month	
128	1,960	228	980	Extension for reply within fifth month	
119	320	219	160	Notice of Appeal	
120	320	220	160	Filing a brief in support of an appeal	
121	280	221	140	Request for oral hearing	
138	1,510	138	1,510	Petition to institute a public use proceeding	
140	110	240	55	Petition to revive - unavoidable	
141	1,280	241	640	Petition to revive - unintentional	
142	1,280	242	640	Utility issue fee (or reissue)	
143	460	243	230	Design issue fee	
144	620	244	310	Plant issue fee	
122	130	122	130	Petitions to the Commissioner	
123	130	123	130	Petitions related to provisional applications	
126	180	126	180	Submission of Information Disclosure Stmt	
581	40	481	40	Recording each patent assignment per property (times number of properties)	\$40.00
146	740	246	370	Filing a submission after final rejection (37 CFR 1.129(a))	
149	740	249	370	For each additional invention to be examined (37 CFR 1.129(b))	
179	740	279	370	Request for Continued Examination (RCE)	
169	900	169	900	Request for expedited examination of a design application	
Other fee (specify):					
Other fee (specify):					
*Reduced by Basic Filing Fee Paid					
SUBTOTAL (3) (\$)					40.00

### SUBMITTED BY

### Complete (if applicable)

Name (Print/Type)	Jeffrey T. Helvey	Registration No. (Attorney/Agent)	44,757	Telephone	202-371-2600
Signature		Date	12/17/01		

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

SKGF Rev. 10/01/01 mnc

FeeTransmit

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Wang *et al.*

Appl. No. *To Be Assigned*

Filed: Herewith (December 17, 2001)

For: **Differential Amplifier with Large  
Input Common Mode Signal  
Range**

Confirmation No.

Art Unit: *To Be Assigned*

Examiner: *To Be Assigned*

Atty. Docket: 1875.1260001/JTH/TAD

**Authorization To Treat A Reply As Incorporating An Extension Of  
Time Under 37 C.F.R. § 1.136(a)(3)**

Commissioner for Patents  
Washington, D.C. 20231

Sir:

The U.S. Patent and Trademark Office is hereby authorized to treat any concurrent or future reply that requires a petition for an extension of time under this paragraph for its timely submission, as incorporating a petition for extension of time for the appropriate length of time. The U.S. Patent and Trademark Office is hereby authorized to charge all required extension of time fees to our Deposit Account No. 19-0036, if such fees are not otherwise provided for in such reply. A duplicate copy of this authorization is enclosed.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Jeffrey T. Helvey  
Attorney for Applicants  
Registration No. 44,757

Date: 12/17/01

1100 New York Avenue, N.W.  
Suite 600  
Washington, D.C. 20005-3934  
(202) 371-2600